

# Work Order ID 59374

Wednesday, June 02, 2010 1:20:26 PM



Page 1

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Item Name: Skidtube RH

Stop



Start Date: 6/2/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 6/9/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan: 11

Date: 6-2-02

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2750

Rev F

100

0.00



DC

DOCUMENT CONTROL

0.00

Memo

Document Control

Photocopy blue file and type labels per PPP D350-636-012 CHG 005

8.10/06/30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 59374**

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Page 2

Item ID: D350-636-012

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Revision ID:

Item Name: Skidtube RH

Start Date: 6/2/2010 Start Qty: 1.00

Required Date: 6/9/2010 Req'd Qty: 1.00

Reference:

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Customer:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start  
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1- Mark cut line on aft end of D2600-3-Bent using Jig DT 8150. Cut to length as per Dwg D2750. Deburr end

2-Drill pilot holes as per Dwg D2750 sheet 5 (D2750-2 details).Drill using drill Jig DT8150 &amp; DT8863 .

3- Mark fwd end for cutting using Drill Jig DT 8150 &amp; DT8863 and cut as per dwg D2750. Deburr.

4- Drill fwd step holes using DT9616. Ensure proper positioning.

5-Drill pilot holes for blade fitting bolts using DT8983. Open to 0.500"

6- locate DT8329 off of blade fitting bolt holes and drill pilot holes blade fitting.

7-Open up holes for Detail K to 0.375" (4 holes per side) blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open holes for ground handling and detail L to 0.500" (8 holes per side)

8-Drill pilot holes for wearplates as per Dwg D2750 using DT8108. Open to 0.297".

9-Open up holes of Detail J to 0.297" (total of 2 holes per side)

10-Weld D2744 Cap as per Dwg D2750 and QSI 004.Fill grooves in bend left from bending as per QSI 004

A/R ☐ Aluminum Rod

Batch: M114242

BE 10/06/10

BE 10/06/10

W/O:		WORK ORDER CHANGES					
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Page 3

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Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

11-Grind welds flush as per Dwg D2750

~ AM 10-06-11

12- scribe batch #.

BE 10/06/10

120

QC10- Inspect visual per QSI004- ground welds

0.00

S 10/06/10



QC

Memo

0.00

Quality Control

130

QC5- Inspect part completeness to step on W/O

0.00

S 10/06/10



QC

Memo

0.00

Quality Control

(10)

W/O:		WORK ORDER CHANGES						
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Wednesday, June 02, 2010 1:20:26 PM

Page 4

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

1 M 10/6/15

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

DP

10-6-15

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

0.00

Skidtubes

Skidtubes

Memo

0.00

1-Open up holes of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.

2-Open up holes of Detail K to 0.750" (total of 4 holes per side) as per dwg D2750.

3-Open float holes to .500" (4 per Side)

4-Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9)

5-Deburr and blow out all chips from inside of tube

6-Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R ☐ Sikaflex-291 batch: M113519 ☐ ☐  
exp. date: 10/11/30

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 &amp; QSI004 (welding instructions on sheet 9)

A/R ☐ Aluminum Rod batch: M114242

9- At section AP-AP drill out x-bolt spacer to 0.404"

10-Grind welds flush as per Dwg D2750

11-Spot face ground handling holes section (total of 4 places per side) as per

DP

10-6-15

BE 10/06/16

BE 10/06/16

10/16/17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 6

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

dwg D2750

12-Deburr holes

MB/6/17

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

Scolocis

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Scolocis

(K)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 7

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Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190

Pressure Wash per QSI005 4.3

0.00

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

10/06/28

x1

Ø

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Powdercoat

Memo

0.00

Powder Coating

START TIME: 10:00  
OVEN TEMPERATURE: 320°  
FINISH TIME: 10:30

1 BL 10-6-29

210

QC3- Inspect Part Finish

0.00

QC

Memo

0.00

Quality Control

Inspect for foreign object per QSI 024

10/06/30

1 d

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Page 8

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

220



HandFinish

Hand Finishing

HandFinishing

Memo

Install inserts as per dwg D2750

0.00

=) JU

10106130

0.00

1

/

230



HandFinish

Hand Finishing

HandFinishing

Memo

0.00

0.00

=) JU

10106130

1

/

✓ 1-Inspect for Foreign Objects

✓ 2-Spray inside of tube with "LPS-3"  
batch: 101A✓ 3-Install blade fitting D3488-042, wearshoes and ground handling hardware as  
per dwg D2750  
SIKA FLEX 241  
BATCH: 11113519  
EXP DATE: 10/10✓ 4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube  
A/R 55-o-ring lube batch: M1141895-Coat all exposed fasteners with "LPS Procyon"  
batch: M104251

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Wednesday, June 02, 2010 1:20:26 PM

Page 9

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Required Date: 6/9/2010 Req'd Qty: 1.00




Reference:

Cust Item ID:

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start  
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00				<u>ml</u>	<u>p</u>	<u>06</u>	<u>30</u> ①
250  Packaging Packaging	Pick Kit  Memo	0.00  0.00				<u>10-6-30</u>	<u>S</u>	<u>P</u>	
260  QC Quality Control	QC4- 100% Inspect kits for completeness  Memo	0.00  0.00				<u>10</u>			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Wednesday, June 02, 2010 1:20:26 PM

Page 10

**Accept**

**Setup Start**

**Stop**

**Start Date:** 6/2/2010      **Start Qty:** 1.00

**Cust Item ID:**

**Required Date:** 6/9/2010      **Req'd Qty:** 1.00

**Customer:**

**Reference:**

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

**Stop**

### Operation Description

### Set Up/ Run Hours

**Tool ID****Tool #****Plan  
Code**

**Accept  
Qty**

Reject  
QtyReject  
Number

**Insp.  
Stamp**

270

0.00

**Abstract**

## Packaging

0.00

### Packaging

## Memo

## Packaging

Package as per PPP D350-636-012

280

0.00



QC21- Final Inspection - Work Order Release

0.00

QC

## Memo

## Quality Control

u 1007.0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

Wednesday, June 02, 2010 1:20:31 PM

Page 1

Work Order ID: 59374

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ  
IPP Rev: J 06-03-29 As per Rev D EC  
IPP Rev: K 06-07.13 As per dsi9343 EC  
IPP Rev: L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By: EC

Start Date: 6/2/2010

Required Date: 6/9/2010

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

220

Each

7,062.000

38

38



Insert



Location

Loc Qty

Loc Code

PK011

7062

110768

7062

AN3C5A

Purchased

No

230

Each

923.0000

34

34



Bolt



Location

Loc Qty

Loc Code

ST350

825

114330

125

114523

200

114808

500

ST351

98

113121

10

114108

45

114181

43

AN3C6A

Purchased

No

230

Each

565.0000

4

4



BOLT



Location

Loc Qty

Loc Code

ST351

565

111982

565

Y4 M 10/06/30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 2

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Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ  
 IPP Rev: J 06-03-29 As per Rev D EC  
 IPP Rev: K 06-07.13 As per dsi9343 EC  
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC

Start Date: 6/2/2010

Required Date: 6/9/2010

Start Qty: 1.00

Required Qty: 1.00

AN6C44A

Purchased

No

230

Each

151.0000

4

4



BOLT

## Location

## Loc Qty

## Loc Code

FG

2

103964

2

ST344

149

111649

2

114455

47

114653

50

114784

50

x4 JH 10/06/30

AN8C35A

Purchased

No

230

Each

56.0000

1

1



BOLT

## Location

## Loc Qty

## Loc Code

FP

6

110847

6

ST346

50

114442

50

x1 JH 10/06/30

AN960C10L

NAS1149C0332

Purchased

No

230

Each

0.0000

38

38



washer

1115000

x38 JH 10/06/30

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Page 3

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Required Date: 6/9/2010

Comments:

IPP Rev: I 02.09.25 Rearranged procedure steps KJ  
 IPP Rev: J 06-03-29 As per Rev D EC  
 IPP Rev: K 06-07.13 As per dsi9343 EC  
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC

Start Qty: 1.00

Required Qty: 1.00

AN960C816L

Purchased No

230 Each

106.0000

1

1



WASHER

## Location

## Loc Qty

## Loc Code

ST348

106

110584

100

111424

6

D2745

Manufactured No

230 Each

146.0000

8

8



Bushing

## Location

## Loc Qty

## Loc Code

ST023

146

52311

69

57914

77

D3488-042

Manufactured No

230 Each

19.0000

1

1



Blade Fitting Assembly, RH

## Location

## Loc Qty

## Loc Code

FP008

19

53918

19

D3492-041

Manufactured No

230 Each

94.0000

8

8



Plug Assembly

## Location

## Loc Qty

## Loc Code

FP013

94

57915

30

58180

60

59189

4

1359114

y8 jd 10/06/30

Wednesday, June 02, 2010 1:20:31 PM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Wednesday, June 02, 2010 1:20:31 PM

Page 4

Work Order ID: 59374



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 6/2/2010

Required Date: 6/9/2010

Comments:

IPP Rev: I 02.09.25 Rearranged procedure steps KJ  
 IPP Rev: J 06-03-29 As per Rev D EC  
 IPP Rev: K 06-07.13 As per dsi9343 EC  
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC

Start Qty: 1.00

Required Qty: 1.00

D3492-043

Manufactured No

230

Each

57.0000

8

8



Plug Assembly



## Location

## Loc Qty

## Loc Code

FP

2

54682

2

1359421

78 JU 10/06/30

FP013

55

57916

51

59190

4

D3535-25

Manufactured No

230

Each

13.0000

1

1



Wearshoe



## Location

## Loc Qty

## Loc Code

FP18

13

57943

13

1359150

XL JU 10/06/30

D3536-25

Manufactured No

230

Each

32.0000

1

1



Gasket



## Location

## Loc Qty

## Loc Code

FP12

32

57944

6

58820

26

XL JU 10/06/30

Wednesday, June 02, 2010 1:20:31 PM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Wednesday, June 02, 2010 1:20:32 PM

Page 5

Work Order ID: 59374

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ  
 IPP Rev: J 06-03-29 As per Rev D EC  
 IPP Rev: K 06-07.13 As per dsi9343 EC  
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC

Start Date: 6/2/2010

Required Date: 6/9/2010

Start Qty: 1.00

Required Qty: 1.00

D3537-1 Manufactured No 230 Each 11.0000 3 3



Wearpad

Location Loc Qty Loc Code

FP 1  
 55465 1  
 FP17 10  
 57713 10

B359116

y3 H 10/06/30

D3631-1 Manufactured No 230 Each 206.0000 8 8



Washer

Location Loc Qty Loc Code

ST076 206  
 52693 206

B354388

y4 H 10/06/30

D3672-1 Manufactured No 230 Each 1,367.000 4 4



Phenolic Washer

Location Loc Qty Loc Code

ST077 1367  
 51674 367  
 52505 1000

y4 H 10/06/30

D3791-1 Manufactured No 230 Each 5.0000 1 1



Wearplate

Location Loc Qty Loc Code

FP17 5  
 56299 5

B358906

y1 H 10/06/30

Wednesday, June 02, 2010 1:20:32 PM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Wednesday, June 02, 2010 1:20:32 PM

Page 6

Work Order ID: 59374



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 6/2/2010

Required Date: 6/9/2010

Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ  
IPP Rev: J 06-03-29 As per Rev D EC  
IPP Rev: K 06-07.13 As per dsi9343 EC  
IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC

Start Qty: 1.00

Required Qty: 1.00

D3793-1

Manufactured No

230

Each

10.0000

1

1



Wearshoe



Location

Loc Qty

Loc Code

FP18

10

1359151

X1 JY 10/06/30

56300

1

57945

9

D3793-3

Manufactured No

230

Each

27.0000

1

1



Wearshoe



Location

Loc Qty

Loc Code

FP18

16

59152

16

X1 JY 10/06/30

FP19

11

57947

11

D3794-1

Manufactured No

230

Each

32.0000

1

1



Gasket



Location

Loc Qty

Loc Code

FP010

26

1359627

X1 JY 10/06/30

57942

26

FP014

6

57537

6

Wednesday, June 02, 2010 1:20:32 PM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Wednesday, June 02, 2010 1:20:32 PM

Page 7

Work Order ID: 59374

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Comments: IPP Rev:I 02.09.25 Rearranged procedure steps KJ  
 IPP Rev:J 06-03-29 As per Rev D EC  
 IPP Rev:K 06-07.13 As per dsi9343 EC  
 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC

Start Date: 6/2/2010

Required Date: 6/9/2010

Start Qty: 1.00

Required Qty: 1.00

D3794-3

Manufactured No

230

Each

14.0000

1

1



Gasket

Location

Loc Qty

Loc Code

FP18

14

1359153

X1 M 10106130

56066

14

MS21043-6

Purchased No

230

Each

826.0000

4

4



NUT

Location

Loc Qty

Loc Code

ST301

826

826

X4 M 10106130

12314

MS21083C8

Purchased No

230

Each

41.0000

1

1



NUT

Location

Loc Qty

Loc Code

ST303

41

11

30

M114934

X1 M 10106130

113845

114523

NAS1611-010

Purchased No

230

Each

302.0000

8

8



O-RING

Location

Loc Qty

Loc Code

FP

302

110715

100

110915

202

PTO =>

Wednesday, June 02, 2010 1:20:32 PM

Shop Packet Print

Page 7

W/O: 59374

## WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/06/30	230	Replace "NAS 1611-010" O-Rings with D2594-3 O-Rings D2594-3 / B-58191	X1	10/06/30	X8		ec/29/9 JS

Part No: D350-636-02 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date &amp; initial all entries

# Picklist Print

Wednesday, June 02, 2010 1:20:32 PM

Page 8

Work Order ID: 59374

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Comments: IPP Rev:I 02.09.25 Rearranged procedure steps KJ  
 IPP Rev:J 06-03-29 As per Rev D EC  
 IPP Rev:K 06-07.13 As per dsi9343 EC  
 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC

Start Date: 6/2/2010

Required Date: 6/9/2010

Start Qty: 1.00

Required Qty: 1.00

NAS1611-013

Purchased No

230 Each

219.0000

8

8



O-RING

## Location

## Loc Qty

## Loc Code

FP

219

114451

181

114496

38

XB 10/06/30

AN8C21A

Purchased No

250 Each

111.0000

2

2



BOLT

## Location

## Loc Qty

## Loc Code

ST345

111

111605

21

113558

50

114653

40

2

AN960C816L

Purchased No

250 Each

106.0000

1

2



WASHER

## Location

## Loc Qty

## Loc Code

ST348

106

110584

100

111424

6

2

D2741

Manufactured No

250 Each

27.0000

1

1



Blade, 350 Skidtube

## Location

## Loc Qty

## Loc Code

ST466

27

55905

27

1

Wednesday, June 02, 2010 1:20:32 PM

Shop Packet Print

Page 8

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Wednesday, June 02, 2010 1:20:32 PM

Page 9

Work Order ID: 59374

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ  
 IPP Rev: J 06-03-29 As per Rev D EC  
 IPP Rev: K 06-07.13 As per dsi9343 EC  
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC

Start Date: 6/2/2010

Required Date: 6/9/2010

Start Qty: 1.00

Required Qty: 1.00

D3493-1  
  
 Washer

Manufactured No 250 Each 33.0000 2



10-6-308

Location Loc Qty Loc Code

ST065 33

57825 33

D3532-1  
  
 Spacer

Manufactured No 250 Each 25.0000 2



2  
 10-6-308

Location Loc Qty Loc Code

ST068 25

52321 25

D3672-13  
  
 Phenolic Washer

Purchased No 250 Each 894.0000 2



2  
 10-6-308

Location Loc Qty Loc Code

ST077 894

54363 894

MS21083C8  
  
 NUT

Purchased No 250 Each 41.0000 1



2  
 M114934 10-6-308

Location Loc Qty Loc Code

ST303 41

113845 11

114523 30

Wednesday, June 02, 2010 1:20:32 PM

Shop Packet Print

Page 9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Wednesday, June 02, 2010 1:20:32 PM

Page 10

Work Order ID: 59374

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Comments: IPP Rev: I 02.09.25 ☐ Rearranged procedure steps ☐ KJ ☐  
 IPP Rev: J 06-03-29 As per Rev D EC  
 IPP Rev: K 06-07.13 As per dsi9343 EC  
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC

Start Date: 6/2/2010

Required Date: 6/9/2010

Start Qty: 1.00

Required Qty: 1.00

D2600-3-BENT

Manufactured No

110 Each

13.0000

1

1



Extrusion Bent

Location

Loc Qty

Loc Code

LG

13

58903

13

D2744

Manufactured No

110 Each

13.0000

1

1



Cap

Location

Loc Qty

Loc Code

LG

13

51922

13

D2739

Manufactured No

160 Each

7.0000

1

1



350 I Beam

Location

Loc Qty

Loc Code

LG

57948

1

58213

1

58904

5

D2743

Manufactured No

160 Each

57.0000

8

8



Crossbolt Spacer

Location

Loc Qty

Loc Code

LG

57

50281

10

52310

24

57953

23

Wednesday, June 02, 2010 1:20:32 PM

Shop Packet Print

Page 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Wednesday, June 02, 2010 1:20:32 PM

Page 11

Work Order ID: 59374



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 6/2/2010

Required Date: 6/9/2010

Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ  
 IPP Rev: J 06-03-29 As per Rev D EC  
 IPP Rev: K 06-07.13 As per dsi9343 EC  
 IPP Rev: L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By: EC

Start Qty: 1.00

Required Qty: 1.00

D3490-3 Manufactured No 160 Each 66.0000 4 4



Cross Bolt Spacer



Location Loc Qty Loc Code

LG 66

57918 6

59229 60

D3490-1 Manufactured No 160 Each 56.0000 4 4



Cross Bolt Spacer



Location Loc Qty Loc Code

LG 56

59228 56

4 BE 10/06/10

4 BE 10/06/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

# **GENERAL NOTES:**

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:  
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.  
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ( $\phi 0.297$ ) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:  
MINIMUM YIELD TENSILE STRENGTH = 35 KSI  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.  
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF  
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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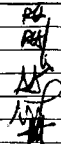
WITHOUT NOTICE  
WORK ORDER

NO. 59374

BJR-6-02

RELEASED

F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H6L; REMOVE D2741; QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-15A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE

DESIGN		<b>DART AEROSPACE USA, INC.</b>	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV.
MFG. APPR.		D2750	SHEET 1 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

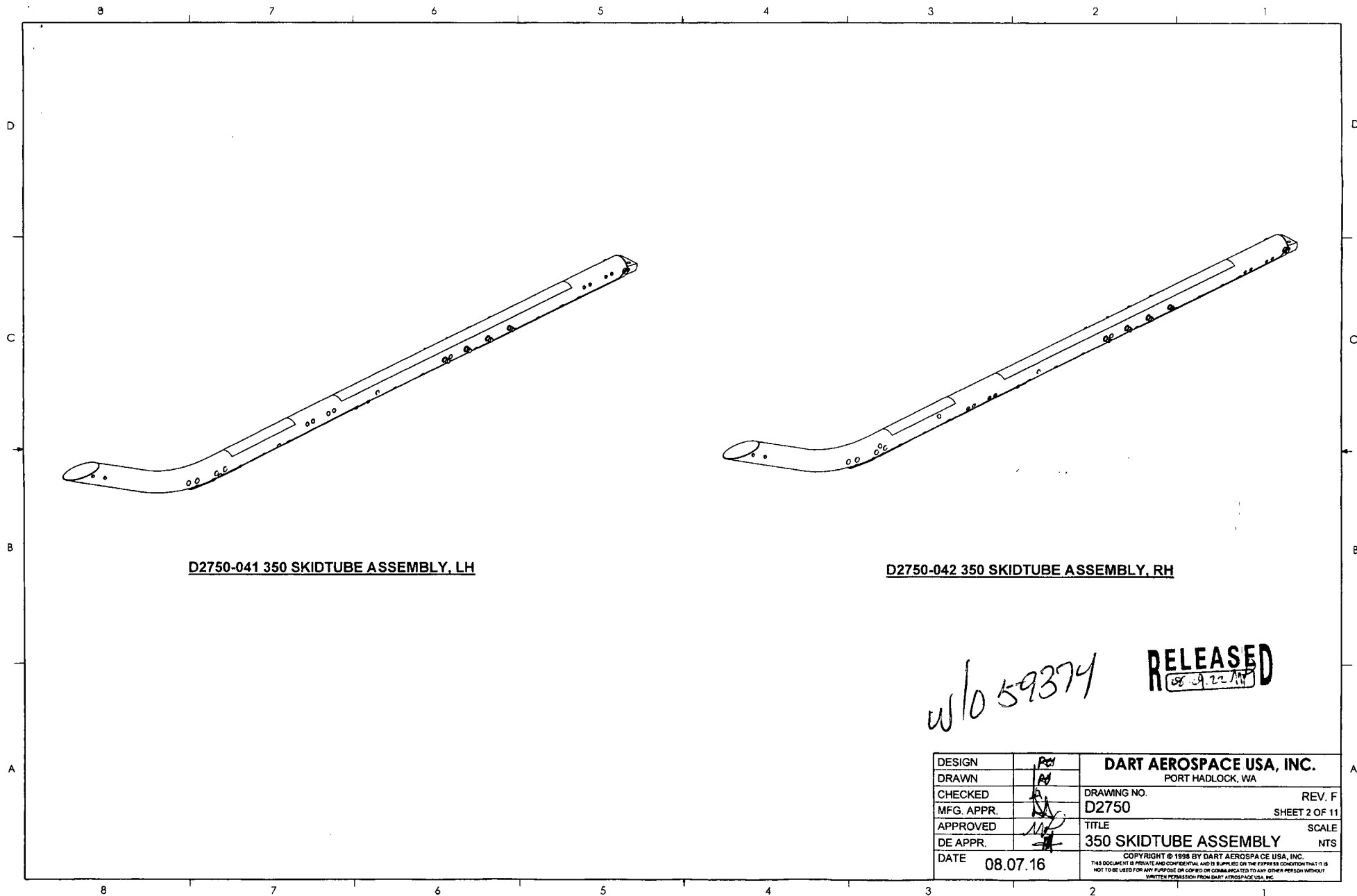
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



w/0 59374

**RELEASED**  
18-9-22-14

DESIGN	PCY	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	AM	PORT HADLOCK, WA	
CHECKED	SA	DRAWING NO. <b>D2750</b>	REV. F
MFG. APPR.	MP	SHEET 2 OF 11	
APPROVED	MP	TITLE	SCALE
DE APPR.	MP	<b>350 SKIDTUBE ASSEMBLY</b>	NTS
DATE	<b>08.07.16</b>	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

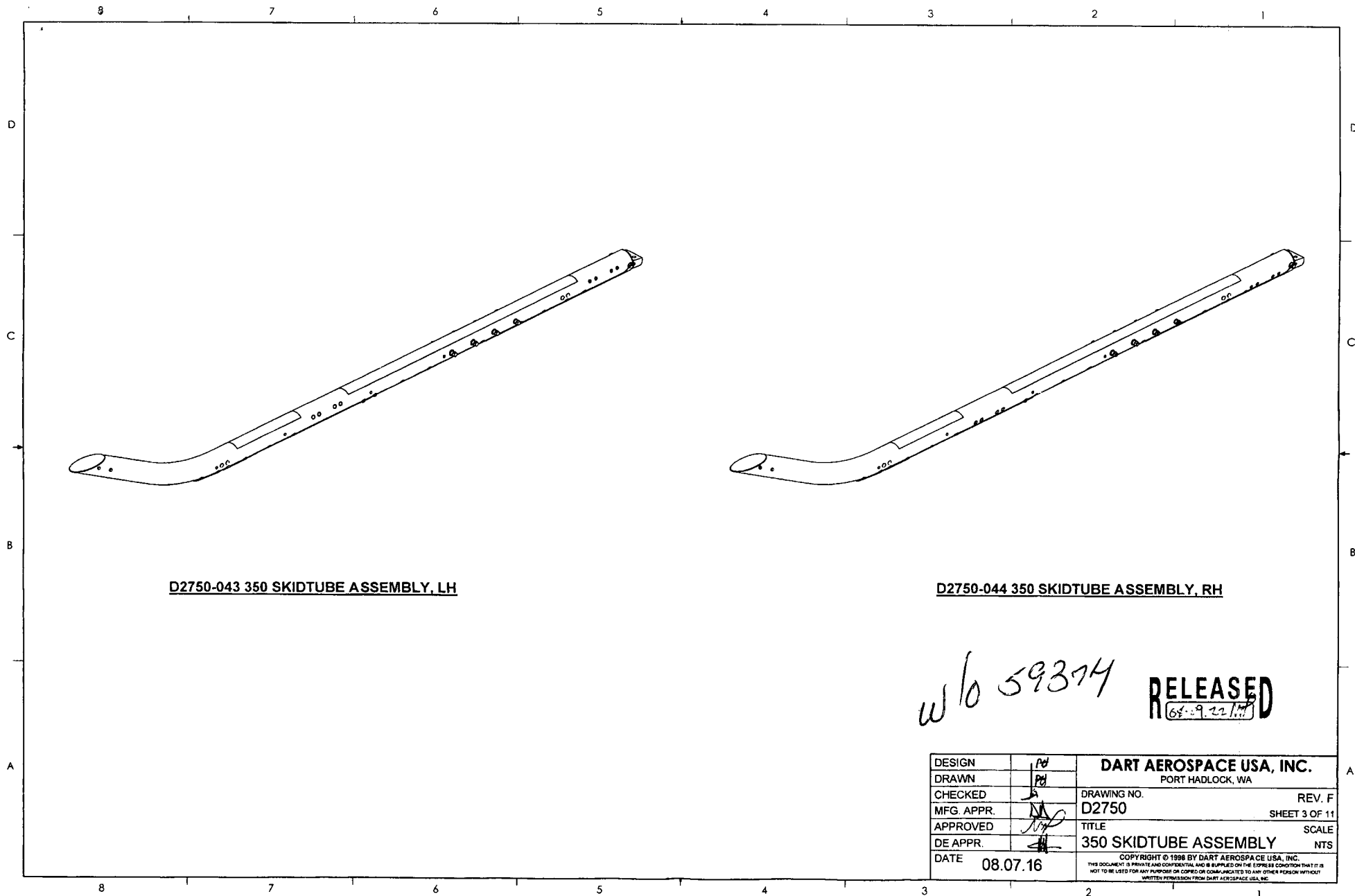
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



w/ 59374

RELEASED  
68-09-22-1-11

DESIGN	PD	DART AEROSPACE USA, INC.	
DRAWN	PD	PORT HADLOCK, WA	
CHECKED	J	DRAWING NO.	REV. F
MFG. APPR.	NA	D2750	SHEET 3 OF 11
APPROVED	NA	TITLE	SCALE
DE APPR.	NA	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

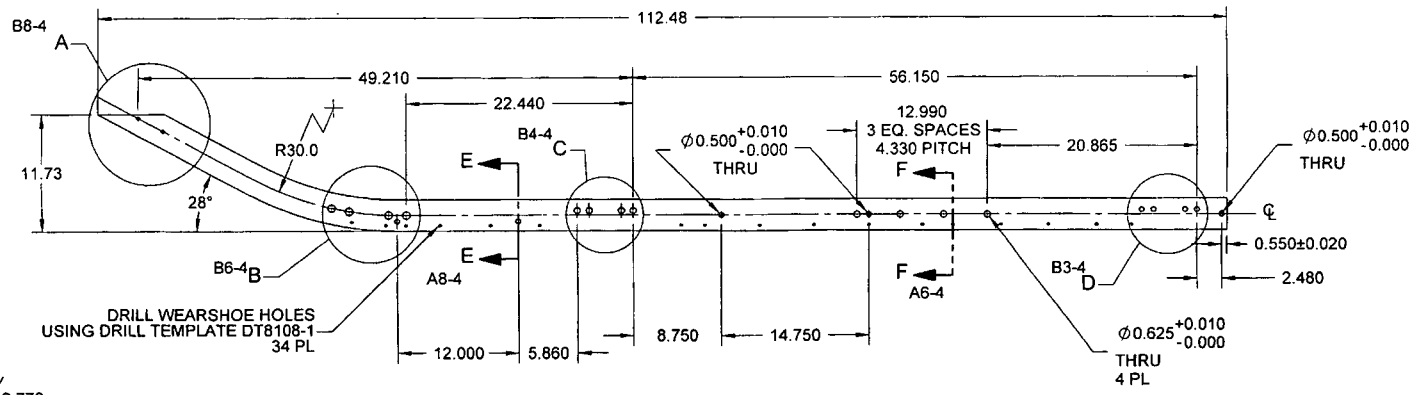
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

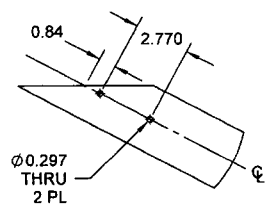
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

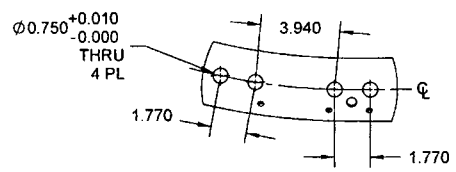




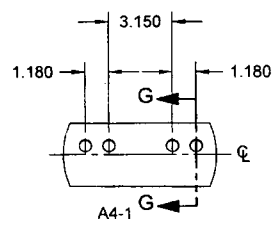
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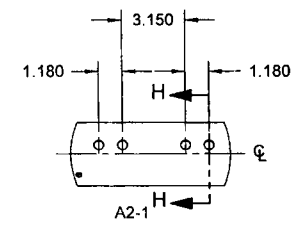
**DETAIL A**  
SCALE 2X



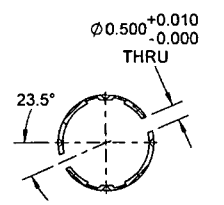
**DETAIL B**  
SCALE 2X



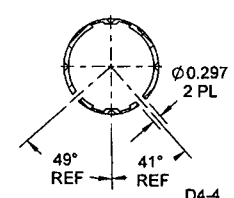
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SCALE 2X



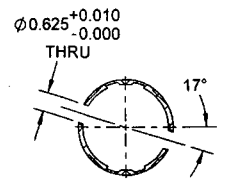
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SCALE 2X



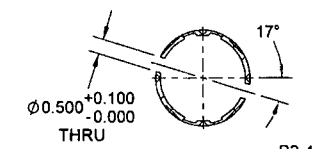
**SECTION E-E**  
SCALE 3X, 2 PL



**SECTION F-F**  
SCALE 3X, 17 PL



**SECTION G-G**  
SCALE 3X, 4 PL



**SECTION H-H**  
SCALE 3X, 4 PL

*wb 59314*

**RELEASED**

DESIGN	PM	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	PM	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		<b>D2750</b>	SHEET 4 OF 11
APPROVED		TITLE	SCALE
DE APPR.		<b>350 SKIDTUBE ASSEMBLY</b>	NTS
DATE	<b>08.07.16</b>	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

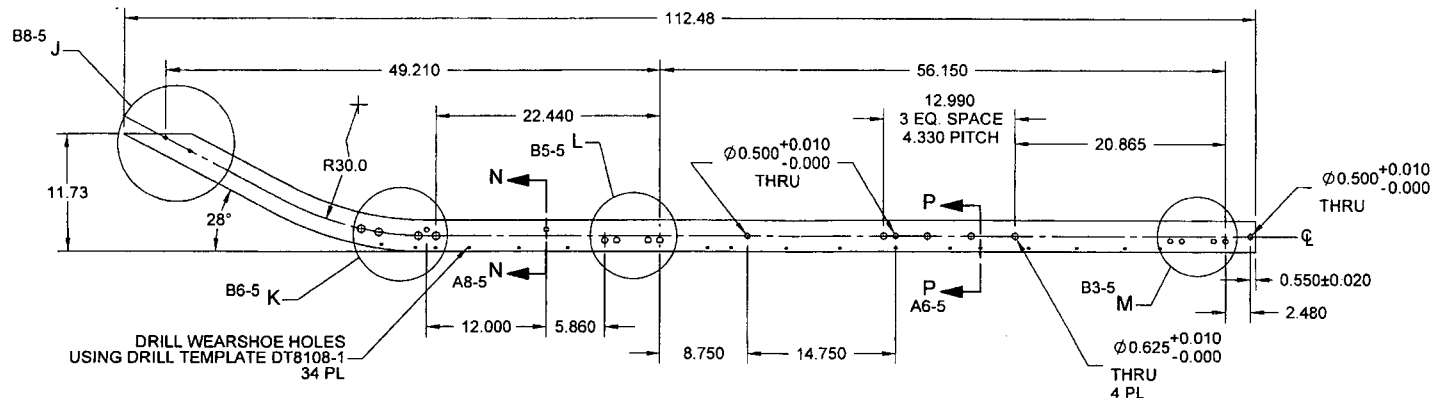
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

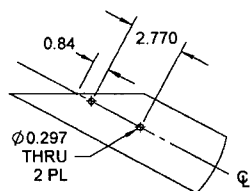
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

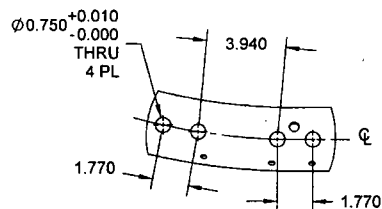
**NOTE:** Date & initial all entries



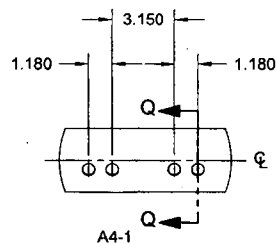
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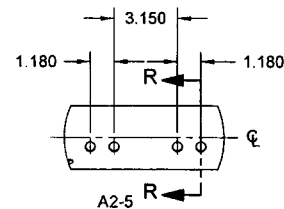
**DETAIL J**  
SCALE 2X



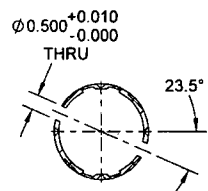
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SCALE 2X



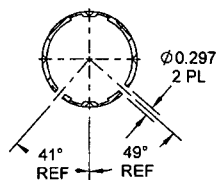
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SCALE 2X



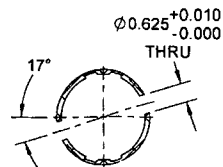
**DETAIL M**  
SCALE 2X



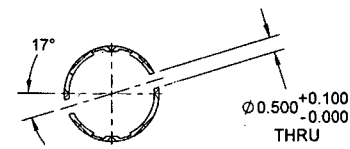
**SECTION N-N**  
SCALE 3X, 2 PL



**SECTION P-P**  
SCALE 3X, 17 PL



**SECTION Q-Q**  
SCALE 3X, 4 PL



**SECTION R-R**  
SCALE 3X, 4 PL

*w/o 59314*

**RELEASED**

DESIGN	<i>PH</i>	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	<i>PH</i>	PORT HADLOCK, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	<i>[Signature]</i>	D2750	SHEET 5 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
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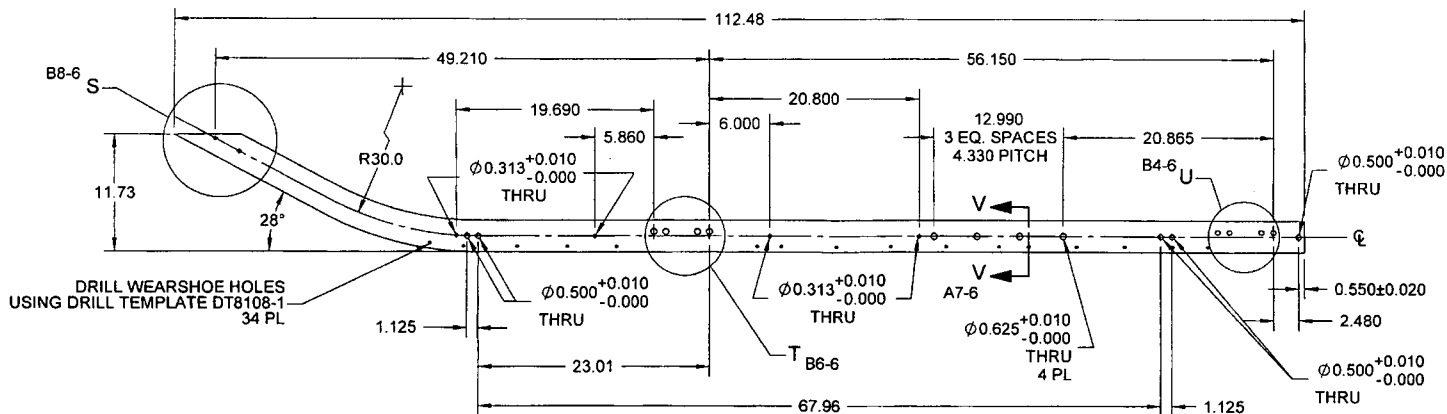
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

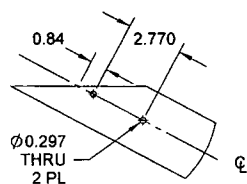
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

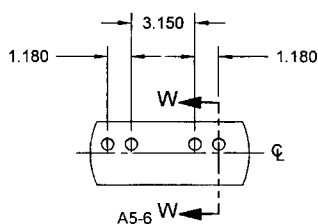
**NOTE:** Date & initial all entries



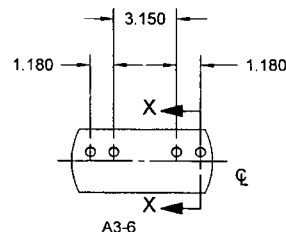
**D2750-3 LH SKIDTUBE**



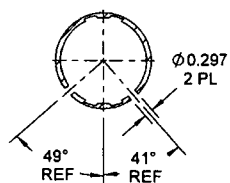
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SCALE 2X



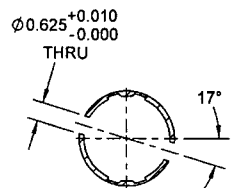
**DETAIL T**  
SCALE 2X



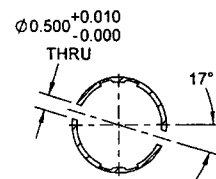
**DETAIL U**  
SCALE 2X



**SECTION V-V**  
SCALE 3X, 17 PL



**SECTION W-W**  
SCALE 3X, 4 PL



**SECTION X-X**  
SCALE 3X, 4 PL

w/0 59374

**RELEASED**

DESIGN		<b>DART AEROSPACE USA, INC.</b>	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		<b>D2750</b>	SHEET 6 OF 11
APPROVED		TITLE	SCALE
DE APPR.		<b>350 SKIDTUBE ASSEMBLY</b>	NTS
DATE	<b>08.07.16</b>	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONSENT THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

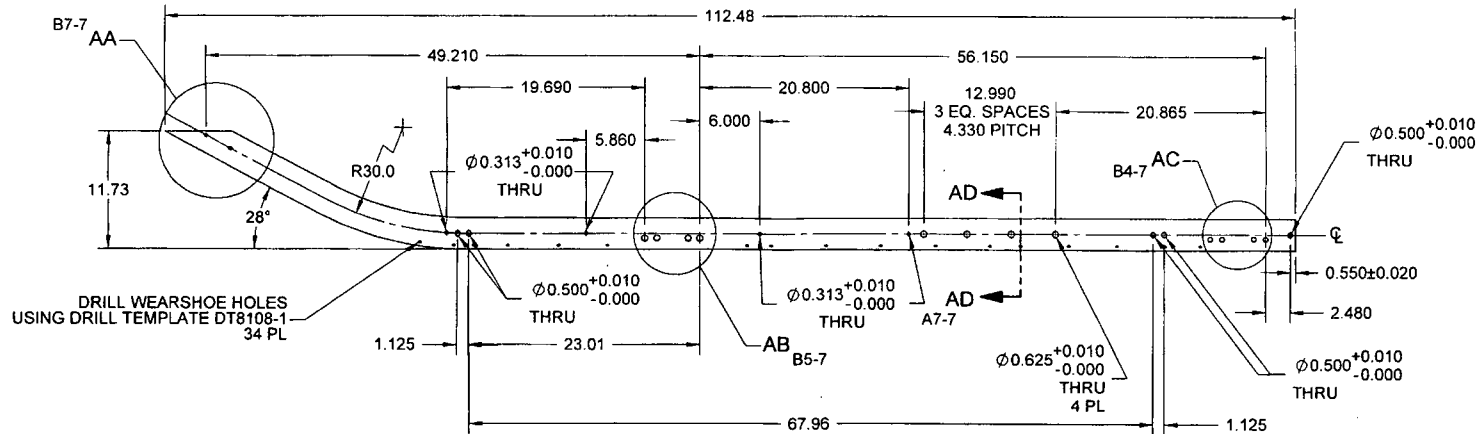
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

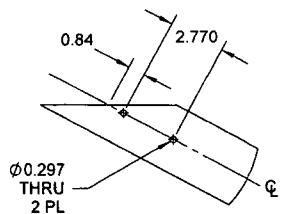
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

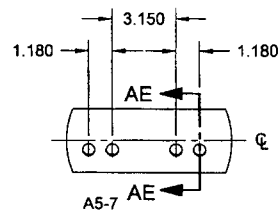
**NOTE:** Date & initial all entries



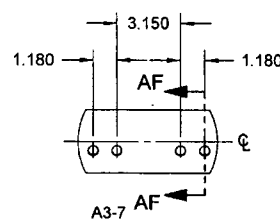
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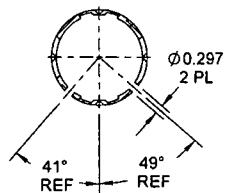
**DETAIL AA**  
SCALE 2X



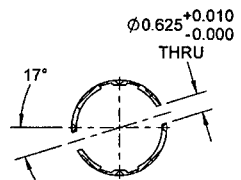
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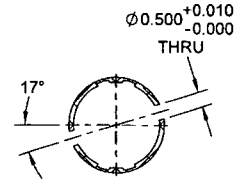
**DETAIL AC**  
SCALE 2X



**SECTION AD-AD**  
SCALE 3X, 17 PL



**SECTION AE-AE**  
SCALE 3X, 4 PL



**SECTION AF-AF**  
SCALE 3X, 4 PL

W/O 52374

**RELEASED**  
06-09-22-117

DESIGN	PA	<b>DART AEROSPACE USA, INC.</b>
DRAWN	PA	PORT HADLOCK, WA
CHECKED	PA	DRAWING NO. <b>D2750</b>
MFG. APPR.	PA	REV. F
APPROVED	PA	SHEET 7 OF 11
DE APPR.	PA	TITLE <b>350 SKIDTUBE ASSEMBLY</b>
DATE	08.07.16	SCALE <b>NTS</b>

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

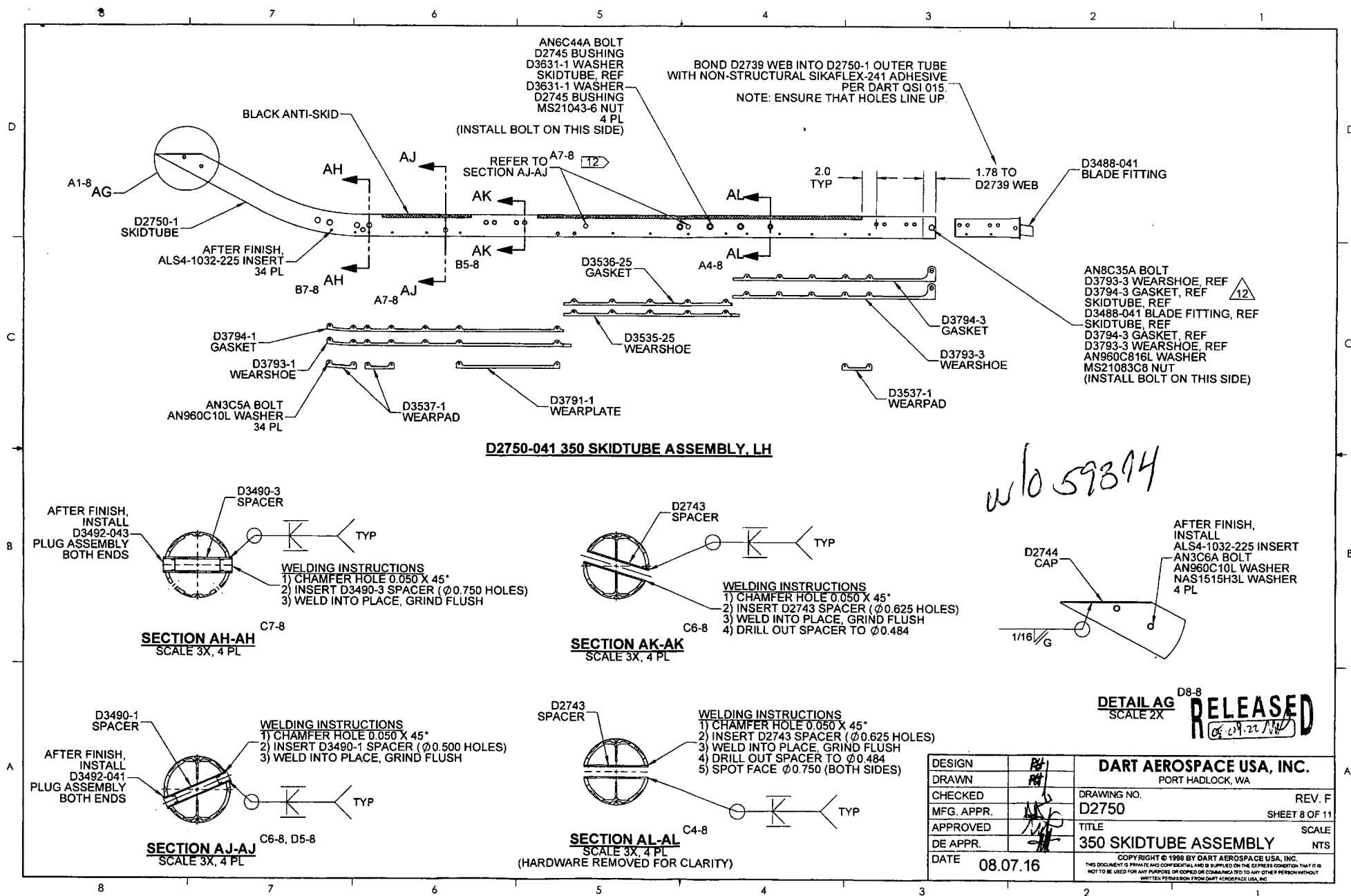
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





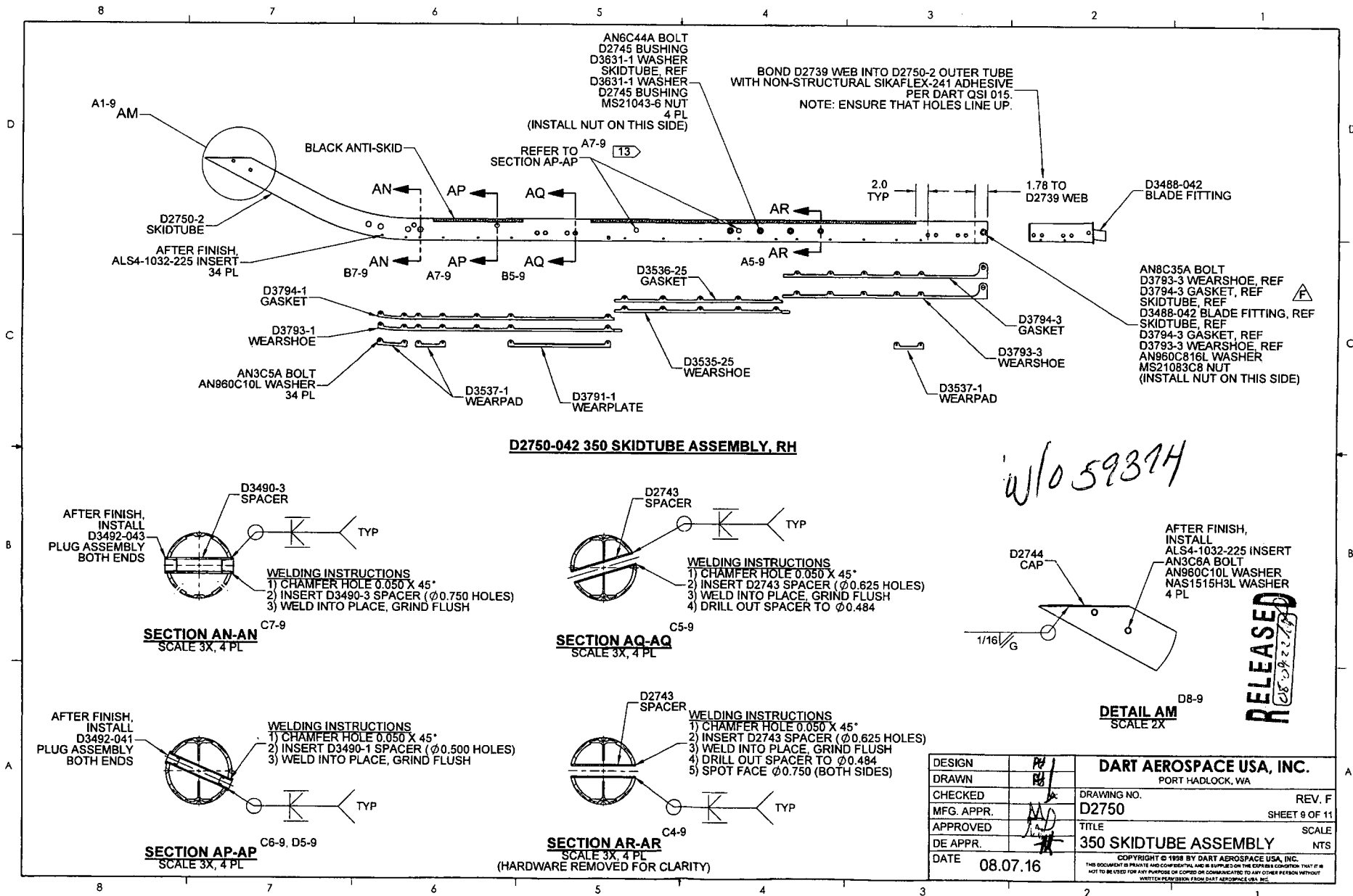
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



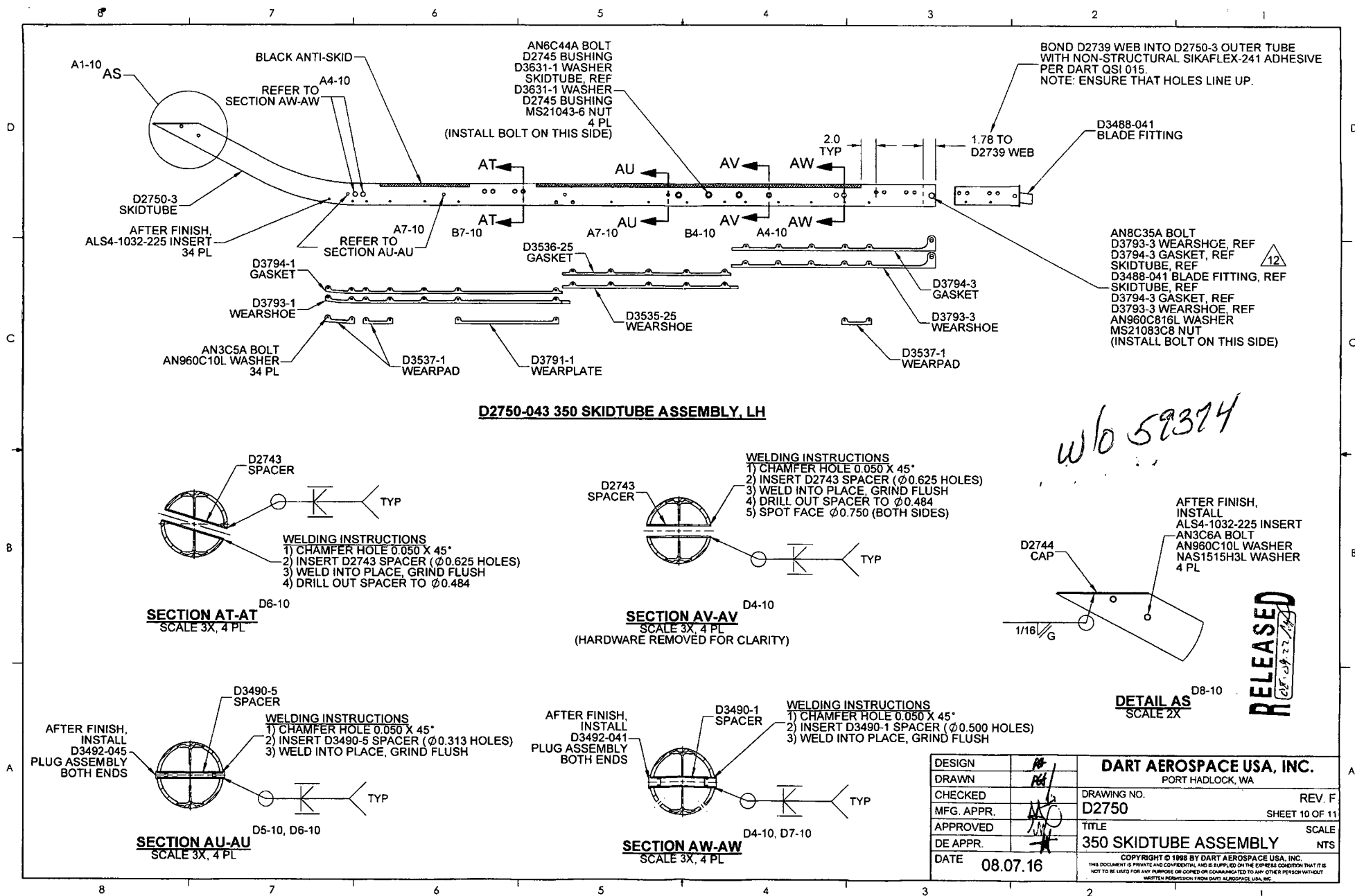
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



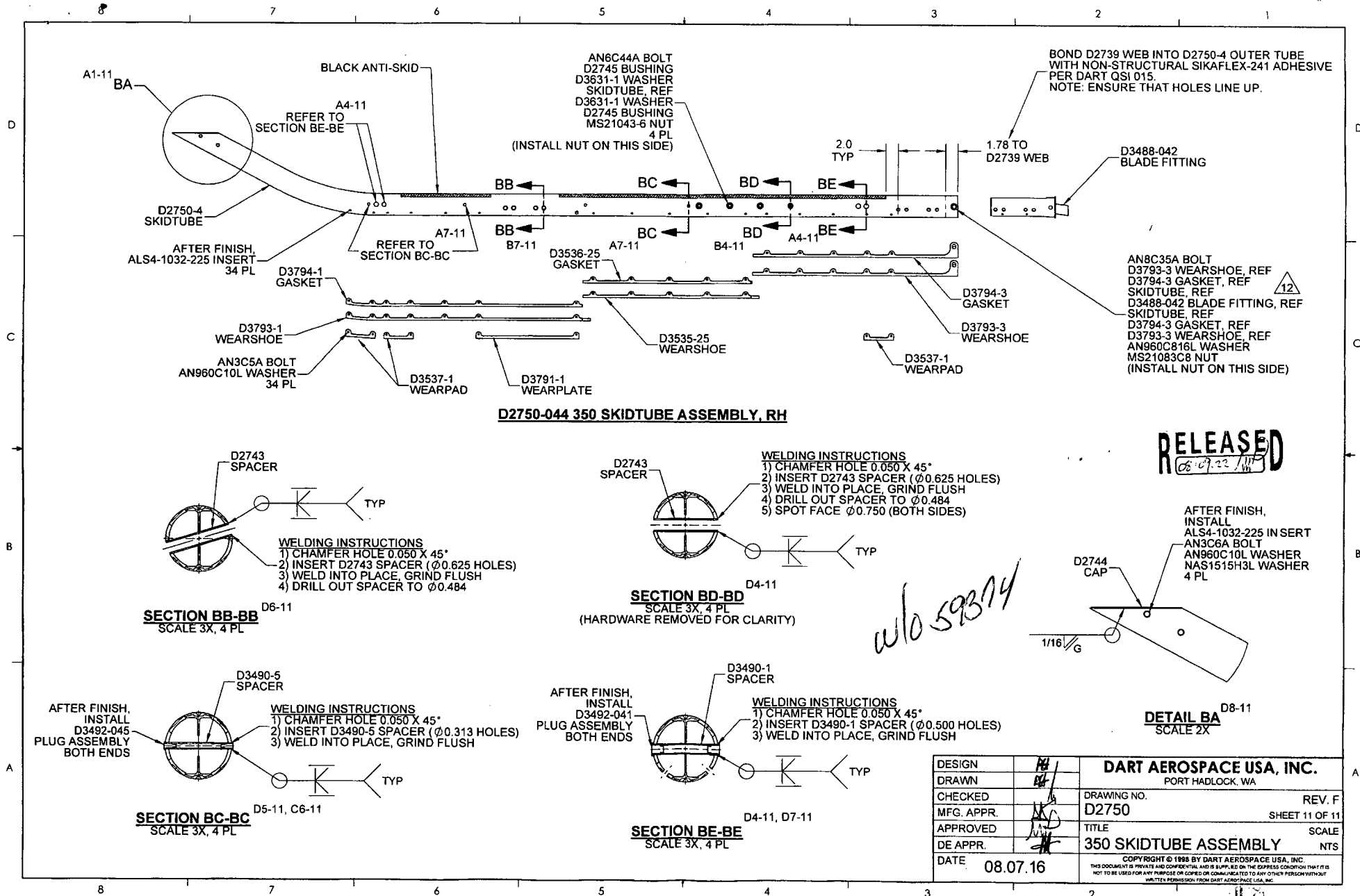
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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W/O:		WORK ORDER CHANGES					
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



NO. 233

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barday Elliott  
Job number: 53816  
Part number: D350-626 014  
Description: 350 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Pat. Dunn Date of Test Coupon 10.06.01

Welder Barday Elliott Date of Test Coupon 10.06.01

The above named individual is qualified in accordance with AWS D17.1.2001 to weld